#### **REMARKS**

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The United States Patent and Trademark Office (the "Office") objected to claim 1 due to informalities. Claims 1 and 3 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent 2,401,250 to Kandle in view of U.S. Patent 2,749,102 to Goodrich and in view of U.S. Patent 2,838,285 to Grendell. The Office rejected claim 2 under 35 U.S.C. § 103 (a) as being unpatentable over *Kandle* in view of *Goodrich* and *Gredell* and further in view of U.S. Patent 2,650,083 to Robbins. The Applicant shows, however, that the Office's *prima facie* case of obviousness fails and that the rejection must be withdrawn. The Applicant thus respectively submits that the pending claims are ready for allowance.

#### Objection to Claim 1

The United States Patent and Trademark Office (the "Office") objected to claim 1 due to informalities. Claim 1 has been amended to further recite "the toothed cone having at least one blade outwardly protruding from a conical portion, the blade having an edge." No new matter is added, and Examiner Smith is thanked for this suggestion.

#### Rejection of Claims 1 & 3 under 35 U.S.C. § 103 (a)

Claims 1 and 3 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent 2,401,250 to Kandle in view of U.S. Patent 2,749,102 to Goodrich and in view of U.S. Patent 2,838,285 to Grendell. Applicant shows, however, that the Office's *prima facie* case of obviousness fails. The Applicant thus respectively submits that pending claims 1-3 are ready for allowance.

## 1. All Claim Limitations are Not Taught, so the *Prima Facie* Case for Obviousness Must Fail

The Examiner's attempted *prima facie* case for obviousness fails to show that all limitations are taught or suggested. If the Office wishes to establish a *prima facie* case of

obviousness, three criteria must be met: 1) combining prior art requires "some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill"; 2) there must be a reasonable expectation of success; and 3) all the claimed limitations must be taught or suggested by the prior art. DEPARTMENT OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2143 (orig. 8th Edition) (hereinafter "M.P.E.P."). The Examiner bears the initial burden of factually supporting any prima facie case of obviousness. See id. at § 2142. "If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." Id. (emphasis added). Only when the Examiner makes a prima facie case does the burden shift to the applicant to present evidence of nonobviousness. See id. (emphasis added). Because the proposed combination of Kandle, Goodrich, and Gredell fails to teach all the claimed features of claim 1, the prima facie case of obviousness must fail. Because the prima facie case fails, the Applicant respectfully requests that Examiner Smith remove the rejection.

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The proposed combination of *Kandle*, *Goodrich*, and *Gredell* fails to teach all the claimed features. Claim 1 recites "each spoke in the array of inner spokes having a bladed portion for removing material." Examiner Smith admits that the proposed combination fails to teach this feature (see May 6, 2004 office action at page 3) ("It would have been further obvious to attach blades to each spoke in order to both be more efficient and the duplication of parts is well known.") The Applicant respectfully disagrees and, instead, believes the array of bladed inner spokes is but one novel and unobvious feature of claim 1. Nonetheless, because the prima facie case fails to show all the claimed features, the Examiner did not bear his burden and the Applicant has no obligation to rebut the Examiner's assertion. Because the proposed combination of *Kandle*, *Goodrich*, and *Gredell* fails to teach every claimed feature, the prima facie case fails and the examiner is required to remove the rejection.

2. The *Prima Facie* Case of Obviousness Must Fail for Lack of Teaching, Suggestion, or Motivation

The Examiner's attempted *prima facie* case for obviousness fails to establish any teaching, suggestion, or motivation. If the Office wishes to establish a *prima facie* case of obviousness, three criteria must be met: 1) combining prior art requires "some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill"; 2) there must be a reasonable expectation of success; and 3) all the claimed limitations must be taught or suggested by the prior art. DEPARTMENT OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2143 (orig. 8th Edition) (hereinafter "M.P.E.P."). When the motivation to combine the teachings is not apparent, the Examiner has a duty to explain why the combination is proper. *See id.* at 2142; *see also In re Skinner*, 2 U.S.P.Q.2d (BNA) 1788 (Bd. Pat. App. & Inter. 1986). Even if the references teach all aspects of the claimed invention, the Examiner's *prima facie* case must still include some objective reason to combine the references. *See* M.P.E.P. at § 2143.01; *see also In re Levengood*, 28 U.S.P.Q.2d (BNA) 1300 (Bd. Pat. App. & Inter. 1993).

Here, the office action fails to identify any teaching, suggestion, or motivation to combine the cited references. The Examiner makes no effort to explain how the cited references would motivate one of ordinary skill to make the proposed combination. Because the Examiner has failed to carry the initial burden of factually supporting the *prima facie* conclusion of obviousness, the Examiner is required to remove the rejection.

## 3. The Prima Facia Case of Obviousness Must Fail for Lack of Expectation of Success

The Examiner's attempted *prima facie* case for obviousness fails to establish any expectation of success. If the Office wishes to establish a *prima facie* case of obviousness, the Examiner must identify a reasonable expectation of success. *See* DEPARTMENT OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE, § 2143 (orig. 8<sup>th</sup> Edition) (hereinafter "M.P.E.P."). Here the Examiner attempts to combine diverse features of three patents to produce a *prima facie* case. The Examiner, however, has failed to establish how one of ordinary skill in the art would expect success when making this combination. Because the Examiner has failed to

carry the initial burden of factually supporting the *prima facie* conclusion of obviousness, the Examiner is required to remove the rejection.

# 4. The Combination of *Kandle*, *Goodrich*, and *Gredell* "Teaches Away" and Does Not Support A *Prima Facie* Case

Kandle "teaches away" from the Applicant's invention. "A prior art reference that 'teaches away' from the claimed invention is a significant factor" when determining obviousness. See M.P.E.P. at § 2145 (X)(D)(1). A prior art reference must be considered as a whole, including portions that lead away from the claimed invention. See id. at § 2141.02; see also W.L. Gore & Assoc., Inc. v. Garlock, Inc., 220 U.S.P.Q. (BNA) 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). "It is improper to combine references where the references teach away from their combination." M.P.E.P. at § 2145 (X)(D)(2). If the proposed combination changes the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to support a prima facie case. See M.P.E.P. at § 2143.01.

The Examiner's proposed combination changes the principle of operation of Kandle. It is important to realize that Kandle only describes a single blade and a cooperating trap door (see column 2, lines 4-18). If Kandle were modified, as Examiner Smith proposes, to include multiple blades, Kandle would require that each blade include a corresponding trap door. This proposed configuration changes Kandle's principle of operation.

Kandle explains the principle of operation. As the blade cuts soil, the soil "passes upwardly over the blade" and the trap door rises "freely until it engages" the flight (column 3, lines 17-22). As Kandle further explains, "soil rises over the blade and ... falls immediately upon the flight where it is gradually pushed upwardly as more soil begins to rise" (column 3, lines 53-56). "By bringing the lower edge of the flight directly to the top of the rib..., it has been found that there s no clogging of soil at this point" (column 3, lines 56-59) (emphasis added). "Where the flight is dropped to rest upon [the] plate, there is danger of clogging of soil immediately behind [the] rib" (column 3, lines 59-61) (emphasis added).

The proposed combination changes the principle of operation of Kandle. If Kandle were modified to include "each spoke in the array of inner spokes having a bladed portion for removing material," as claim 1 recites, Kandle would have to have multiple trap doors. These multiple ribs, blades, and trap doors would not permit the lower edge of the flight to abut each rib, as Kandle requires. It would be physically impossible, in fact, to have the lower edge of the flight engage multiple ribs. The Examiner's proposed combination, therefore, would change Kandle's principle of operation. When Kandle is considered as a whole, the proposed combination of Kandle, Goodrich, and Gredell fails to teach "each spoke in the array of inner spokes having a bladed portion for removing material." The Examiner's proposed combination would not achieve the purpose of moving soil but, instead, clog soil at each rib, as Kandle cautions against. Because the proposed combination of Kandle, Goodrich, and Gredell teaches away and changes the principle of operation of a reference, the combined references cannot support a prima facie case. The Applicant, then, respectfully asks the Examiner to remove the rejection.

### Rejection of Claim 2 under 35 U.S.C. § 103 (a)

The Office rejected claim 2 under 35 U.S.C. § 103 (a) as being unpatentable over Kandle in view of Goodrich and Gredell and further in view of U.S. Patent 2,650,083 to Robbins. As this response explains above, however, this proposed combination fails to teach all the limitations of claims 1 and 2. As this response also explains above, the Office has failed to satisfy their burden for presenting a prima facie case of obviousness, so Examiner Smith is required to remove the rejection. This response also explains above that the Kandle reference "teaches away" from the Applicant's invention. Because the proposed combination "teaches away" and changes the principle of operation of a reference, the combined references cannot support a prima facie case. The Applicant, then, respectfully asks the Examiner to remove the rejection.

The Office has failed to establish a *prima facie* case for obviousness. Because the pending claims are patentably distinguishable over any combination of *Kandle*, *Goodrich*, and *Gredell*, the Applicant, Mr. Donald Matthews, respectively requests that a Notice of Allowability issue.

If any issues remain outstanding, the Office is requested to contact the undersigned at (919) 387-6907 or <u>scott@scottzimmerman.com</u>.

Respectfully submitted,

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